





**MANUFACTURE OF ZINC.**—Mr. T. Bennett, of Baglil, has patented an invention, which consists in mixing common salt, or other chlorine-holding material, with the calcined zinc ore, and then subjecting the mixture to the usual manner of processing. He first calcines the blende, calamine, or other zinc ore in the best proportions possible. He then mixes the ore with coal, coke, or similar substances, and adds chloride of sodium, or common salt. He has found 4 per cent. of the chloride of sodium most injuriously affecting the result; he then subjects the mixture to the decalcifying process in the rotary furnace. Instead of chloride of sodium he can use chloride of lime, muriatic acid, or chloride of calcium in the same proportions, and at the same stage of the process, but he prefers the chloride of sodium.



[illegible]

Old Wheal Neptune Copper Mine is situated in the parish of Perranuthnoe, near Marazion, Cornwall. I found it to be an old mine, which has been considerably worked, and was suspended about forty years since on account of some dispute between the lords and adventurers. An old section of this mine was placed before me, which gave me a good knowledge of all the former workings, and is a most valuable and important document worth far more than any report, for the information it affords of what was done and should be done in working the mine. I find that operations were carried on for about

1. MEXICO SHAF.
2. OHAN'S SHAF.
3. MAYANT'S SHAF.
4. GIDDY'S SHAF.
5. OLD ENGINE SHAF.
6. NEW ENGINE SHAF.
7. GUNDEY'S SHAF.
8. FLAT ROD SHAF.
9. TRAVELER'S SHAF.
10. DOWDAID SHAF.
11. FOKINGBOON'S SHAF.
12. NOBOM'S SHAF.
13. RICHARDS'S SHAF.

12 FATHOMS TO 45 INCH.



TUESDAY, JUNE 17, AT ELEVEN O'CLOCK A.M.

IMPORTANT MINE SALE.

GREAT WHEEL ALFRED MINE, one mile from the port of HAYLE, CORNWALL.  
**MR. JOHN BURGESS** is instructed to **SELL, BY PUBLIC AUCTION, ON TUESDAY, the 17th day of JUNE, at Eleven o'clock in the forenoon, all the hereinafter described VALUABLE ENGINES AND MINING MATERIALS** at GREAT WHEEL ALFRED MINE.

Lot.	Description of Lot.	Weight: cwt. qrs. lbs.
1.	65 in. cylinder PUMPING ENGINE, at Copper House shaft, stroke in cylinder 9 ft., stroke in shaft, 9 ft., first piece of rod, faggoted caps and brasses.	—
2.	12 ton BOILER AND FITTINGS.	—
3.	12 ton BOILER AND FITTINGS.	—
4.	25 in. cylinder DRAWING ENGINE, and crusher attached.	—
5.	BOILER AND FITTINGS, about 9 tons.	—
6.	8 in. cylinder HORIZONTAL ENGINE; attached are the following:—	—
7.	BOILER AND FITTINGS.	—
8.	BORING MACHINE.	—
9.	SCREWING MACHINE.	—
10.	PUNCHING MACHINE.	—
11.	4 in. cylinder ENGINE (incomplete), BOILER about 15 cwt.	—
12.	Copper House SHEARS, 4 pulleys, 60 ft. legs, 16 in. x 17; brass, per lb.	—
13.	Shaft tackle.	—
14.	8 armed cast iron head, deal axle.	—
15.	8 armed cast iron head, deal axle, and cast iron centre piece; brass (if any) per lb.	—
16.	Shears and 2 pulleys at painter's shaft, 50 to 60 ft. legs; brass per lb.	—
17.	8 armed cast iron head (in yard), deal axle.	—
18.	10 in. capstan rope.	47 0 0
19.	150 fms. capstan rope.	—
20.	Balances from the 70 fms. level, 22 ft. oak beam, 19 in. square, strong faggoted straps and pins, and flat thread top staples; brass per lb.	—
21.	9 ft. 13 in. pump, broken.	12 2 0
22.	3 ft. 14 in. matching.	6 1 14
23.	6 ft. 14 in. matching.	11 1 14
24.	9 ft. 14 in. pump.	17 14
25.	9 ft. 14 in. pump.	15 2 4

TIMBER AT PAINTER'S SHAFT.

51.	5 pieces of timber.	—
52.	5 pieces of timber.	—
53.	5 pieces of timber.	—

IN THE COAL YARD.

56.	9 ft. 18 in. pump.	—
57.	11 ft. 9 in. pump.	—
58.	Stuffing box and gland.	—
59.	Flat piece of oak.	—

FLOORS IN FRONT OF ACCOUNT HOUSE.

62.	9 ft. 18 in. pump.	20 0 14
63.	9 ft. 21 in. pump and matching.	35 2 7
64.	6 ft. 21 in. pump.	16 2 14
65.	9 ft. 18 in. pump.	24 2 0
66.	12 ft. 17 in. working barrel.	24 2 0
67.	13 ft. 18 in. working barrel.	44 0 0
68.	13 ft. 18 in. working barrel.	26 2 0
69.	12 ft. 12 in. working barrel.	19 2 7
70.	12 ft. 12 in. working barrel.	14 0 0
71.	10 ft. 13 in. sinking windrose.	16 1 21
72.	9 ft. 12 in. sinking windrose.	18 1 7
73.	8 ft. 17 in. sink bottom windrose.	23 1 0
74.	6 ft. 20 in. sink bottom windrose.	21 0 21
75.	19 in. doorpiece.	39 2 14
76.	19 in. doorpiece.	29 2 0
77.	19 in. doorpiece.	24 2 14
78.	19 in. doorpiece.	24 2 14
79.	12 in. doorpiece.	16 3 14

OUTSIDE BLASTING ENGINE.

103.	2 1/2 in. 6 ft. cast flanch pump.	1 1 0
104.	2 1/2 in. 6 ft. ditto.	1 1 7
105.	2 1/2 in. 6 ft. ditto.	1 1 0
106.	2 1/2 in. 6 ft. ditto.	1 1 7
107.	2 1/2 in. 6 ft. ditto.	1 1 0
108.	2 1/2 in. 6 ft. ditto.	1 1 7
109.	2 1/2 in. 6 ft. ditto.	1 1 0
110.	2 1/2 in. 6 ft. ditto.	1 1 7
111.	2 1/2 in. 6 ft. ditto.	1 1 0
112.	2 1/2 in. 6 ft. ditto.	1 1 7
113.	2 1/2 in. 6 ft. ditto.	1 1 0
114.	2 1/2 in. 6 ft. ditto.	1 1 7
115.	2 1/2 in. 6 ft. ditto.	1 1 0
116.	2 1/2 in. 6 ft. ditto.	1 1 7
117.	2 1/2 in. 6 ft. ditto.	1 1 0
118.	2 1/2 in. 6 ft. ditto.	1 1 7
119.	2 1/2 in. 6 ft. ditto.	1 1 0
120.	2 1/2 in. 6 ft. ditto.	1 1 7
121.	2 1/2 in. 6 ft. ditto.	1 1 0
122.	2 1/2 in. 6 ft. ditto.	1 1 7
123.	2 1/2 in. 6 ft. ditto.	1 1 0
124.	2 1/2 in. 6 ft. ditto.	1 1 7
125.	2 1/2 in. 6 ft. ditto.	1 1 0
126.	2 1/2 in. 6 ft. ditto.	1 1 7
127.	2 1/2 in. 6 ft. ditto.	1 1 0
128.	2 1/2 in. 6 ft. ditto.	1 1 7
129.	2 1/2 in. 6 ft. ditto.	1 1 0
130.	2 1/2 in. 6 ft. ditto.	1 1 7
131.	2 1/2 in. 6 ft. ditto.	1 1 0
132.	2 1/2 in. 6 ft. ditto.	1 1 7
133.	2 1/2 in. 6 ft. ditto.	1 1 0
134.	2 1/2 in. 6 ft. ditto.	1 1 7
135.	2 1/2 in. 6 ft. ditto.	1 1 0

IN SMITH'S SHOP.

169.	40 in. smith's bellows.	—
170.	36 in. smith's bellows.	—
171.	Smith's anvil.	3 0 14
172.	ditto.	3 0 14
173.	ditto.	3 0 14
174.	Faggoted smith's horse.	2 1 21
175.	ditto.	3 0 7
176.	3 small ditto.	0 3 7
177.	Skip axle anvil (cast).	0 3 7
178.	New skip for 19 in. road.	3 3 14
179.	Sundry flat iron.	2 3 0
180.	Wrought scrap iron.	15 0 0
181.	ditto.	8 3 0
182.	ditto.	1 3 0
183.	Faggoted forged crans.	0 3 0
184.	ditto.	0 1 14
185.	ditto.	0 1 14
186.	New skip axles.	4 2 0
187.	Skip tools, cutters, & gibs.	1 0 0
188.	Cast iron.	6 1 0
189.	New shaft gig, wrought iron, with 8 wheels, to run on skip road.	8 0 14
190.	Smith's tongs.	8 0 13
191.	Boil tools.	6 0 0
192.	Swages, steel punches, and clefs.	4 0 0
193.	Large bottom anvil, swages, and punches.	10 2 14
194.	Small boil tools.	2 1 21
195.	Small tongs.	3 2 21
196.	Swage anvil to work 30 sizes and shapes, round.	—

IN THE IRON HOUSE.

225.	5 in. flat iron.	2 1 14
226.	3 and 4 in. ditto.	5 1 7
227.	1 1/2 in. round iron.	1 3 10
228.	1 in. ditto.	1 3 10
229.	2 in. best bar iron.	4 2 2
230.	3/4 in. square iron.	3 3 0
231.	3/4 in. cast borer steel.	2 1 4
232.	1/2 in. ditto.	1 2 0
233.	Old cast-steel borer.	4 2 0

BY THE SHOP.

236.	4 ft. shears.	5 2 14
237.	2 1/2 ft. shaft roll, 20 in. wide.	7 0 7
238.	2 1/2 ft. ditto.	8 0 7
239.	2 1/2 ft. ditto.	4 0 21
240.	2 ft. ditto.	4 0 21
241.	1 1/2 ft. ditto.	3 0 2
242.	Shaft gibs.	3 1 21
243.	ditto.	3 0 0
244.	ditto.	2 0 0
245.	ditto.	2 0 0
246.	Old kibble.	2 2 21
247.	ditto.	2 2 21
248.	ditto.	2 2 21
249.	ditto.	2 2 0

BY THE SHOP—(continued).

265.	Old skips, 20 in. wide.	6 3 14
266.	ditto.	6 3 14
267.	ditto.	6 3 14
268.	6 ft. shieve.	8 0 14
269.	6 ft. ditto.	8 0 14
270.	2 1/2 in. bucket rod.	5 2 14
271.	2 in. ditto.	2 0 21
272.	2 in. ditto.	2 0 21
273.	Faggoted loop, 10 ft. long.	2 0 14

IN THE IRON YARD.

282.	2 ft. shieve.	1 1 21
283.	ditto.	1 2 0
284.	ditto.	1 1 21
285.	ditto.	1 2 0
286.	ditto.	1 2 0
287.	ditto.	1 2 0
288.	ditto.	1 1 21
289.	ditto.	1 1 21
290.	ditto.	1 2 0
291.	ditto.	1 2 0
292.	ditto.	1 0 14
293.	ditto.	2 2 14
294.	ditto.	2 2 14
295.	ditto.	2 2 14
296.	ditto.	2 2 14
297.	ditto.	2 2 14
298.	ditto.	1 2 21
299.	ditto.	1 2 21
300.	ditto.	0 3 0
301.	ditto.	0 2 21
302.	ditto.	0 3 0
303.	ditto.	0 3 0
304.	ditto.	0 2 21
305.	ditto.	0 3 0
306.	ditto.	0 3 0
307.	ditto.	0 3 0
308.	ditto.	0 2 21
309.	ditto.	0 3 0
310.	ditto.	0 3 0
311.	ditto.	0 3 0
312.	ditto.	0 3 0
313.	ditto.	0 3 0
314.	ditto.	0 3 0
315.	ditto.	0 3 21
316.	ditto.	0 3 0
317.	ditto.	0 3 0
318.	ditto.	0 3 0
319.	2 1/2 ft. shieve, broken.	1 3 14
320.	2 1/2 ft. ditto.	1 1 21
321.	2 1/2 ft. ditto.	1 1 21
322.	2 1/2 ft. ditto.	0 2 21
323.	2 1/2 ft. ditto.	0 2 21
324.	2 1/2 ft. ditto.	0 2 21
325.	2 1/2 ft. ditto.	0 3 0
326.	Zinc funnel.	—
327.	Zinc air pipes.	—
328.	Bucket seating.	1 2 7
329.	Bucket seating.	0 2 21
330.	Drop clack.	2 2 0
331.	Drop clack and prong.	1 0 14
332.	2 buckets and prongs.	1 3 7
333.	ditto.	2 0 7
334.	Small clasp and joints.	3 1 21
335.	3 new faggoted clasp and joints.	3 1 14
336.	2 new ditto.	3 2 0
337.	Pick-moulds.	3 2 0
338.	Faggoted rubbing bar.	1 3 7
339.	ditto.	1 3 0
340.	2 ft. new shaft roll.	1 0 7
341.	2 ft. ditto.	1 0 14
342.	2 ft. ditto.	1 3 7
343.	2 ft. ditto.	2 2 7
344.	Short plates, thread tops.	1 1 0
345.	2 horse wheel shieves.	—
346.	2 ditto.	—
347.	Washing plates.	2 3 0
348.	ditto.	2 3 0
349.	ditto.	2 0 7
350.	ditto.	2 3 14
351.	3 arms for whelm.	8 2 0
352.	6 winze kibbles.	4 0 0
353.	Faggoted joints.	2 3 0
354.	2 pair of small yokes.	1 0 21
355.	1 pair 9 in. faggoted yokes.	1 1 14
356.	1 9 in. ditto.	1 1 0
357.	1 12 in. ditto.	1 1 21
358.	1 15 in. ditto.	3 1 10
359.	1 15 in. ditto.	5 2 14
360.	1 17 in. ditto.	5 2 14
361.	1 19 in. ditto.	5 2 14
362.	1 21 in. ditto.	5 2 14
363.	Flat iron.	15 2 0
364.	Pair of couplings.	6 3 0
365.	ditto.	9 2 0
366.	ditto.	8 2 14
367.	9 coupling rings.	26 1 14
368.	Faggoted pins.	20 1 14
369.	Iron horse.	2 1 14
370.	Wrought iron loops, &c.	—
371.	Crab winch.	—
372.	ditto.	—
373.	Sundry clacks.	0 3 21
374.	2 clacks.	1 2 0
375.	2 ditto.	1 2 0
376.	2 ditto.	1 1 14
377.	2 ditto.	1 1 14
378.	2 ditto.	1 3 7
379.	2 ditto.	1 1 21
380.	4 ditto.	4 0 0
381.	3 ditto.	2 2 0
382.	2 ditto.	1 1 0
383.	6 holed jiggling sieve.	—
384.	5 ditto.	—
385.	12 dozen shovels.	—
386.	5 ditto.	—
387.	5 ditto.	—

IN THE MATERIAL HOUSE IN YARD.

489.	Large candle chest.	—
490.	Small candle chest.	—
491.	Fuse, 86 coils.	1 2 0
492.	New large scales beam, 7 ft. long.	—
493.	ditto, 5 ft. long.	—
494.	Copper ore beam.	—
495.	ditto.	—
496.	Smith's beam and scales.	—
497.	2 ft. 4 in. beam & scales.	—
498.	2 copper bottom sieves.	—
499.	2 ditto ditto, each.	—
500.	Powder scales & beam.	—
501.	2 copper bottom sieves.	—
502.	2 ditto ditto, each.	—
503.	1 1/2 dozen pick hilt, per lb.	—
504.	Tray and riddle handles.	—
505.	Wood scrapers, &c.	—
506.	Nail chest.	—
507.	8 hand sieves.	—
508.	9 hand riddles, each.	—
509.	Old shovels.	—
510.	Anti-friction grease.	—
511.	Oil and barrel.	—
512.	Door and frame.	—
513.	6 brass bottomed sieves.	—
514.	6 brass ditto.	—
515.	6 brass ditto.	—
516.	6 brass ditto.	—
517.	6 brass ditto.	—
518.	6 brass ditto.	—
519.	2 1/2 bundles of lathes each.	—
520.	A quantity of oak ladder staves.	—
521.	1/2 in. galvanized crushing riddle.	—
522.	1/2 in. galvanized botm.	—
523.	10 1/2 in. ditto.	—
524.	2 1/2 in. ditto.	—
525.	13 1/2 in. ditto.	—
526.	1/2 in. ditto.	—
527.	1 1/2 in. ditto.	—
528.	Pair of treble brass blocks per lb.	—
529.	All old brass.	—
530.	New bell wire.	—
531.	2 large powder cans.	—
532.	5 small ditto.	—
533.	Levers.	—
534.	Old lead.	—
535.	Old lead.	—
536.	4 sledge & 3 hand spikes.	—

MATERIAL HOUSE, BY STABLE.

537.	Red lead.	—
538.	3 new winze kibbles.	—
539.	3 ditto.	—
540.	3 ditto.	—
541.	3 ditto.	—
542.	3 ditto.	—
543.	3 ditto.	—
544.	3 ditto.	—
545.	3 ditto.	—
546.	3 ditto.	—
547.	3 ditto.	—
548.	3 ditto.	—
549.	2 ditto per lb.	—
550.	Iron borings for joints.	—
551.	Pitch.	—
552.	Oil cans.	—
553.	13 sampling shovels.	—
554.	24 new shovels.	—
555.	42 ditto.	—
556.	1 leading block.	—
557.	Dry tube.	37 2 4
558.	Sundry miners' chests, wheelbarrows, hand, barrows, and weighing barrows.	—

DRY.

574.	Dry tube.	37 2 4
575.	Sundry miners' chests, wheelbarrows, hand, barrows, and weighing barrows.	—
576.	Chest shed.	—
577.	ditto.	—
578.	ditto.	—